

A monoclonal antibody by which medullasin that is a kind of serine proteases existing in granulocytes, production process thereof and an immunoassay of human medullasin using the antibody are disclosed.

5 The monoclonal antibody specifically recognizes human medullasin. The process for producing the anti-human medullasin antibody comprises culturing hybridomas prepared by cell fusion between antibody-producing cells recovered from an animal immunized with human medullasin and myeloma cells, and recovering anti-human medullasin monoclonal antibody which specifically recognizes human medullasin from the culture in which the hybridomas are cultured. The immunoassay utilizes the anti-human medullasin antibody.